

Appl. No. 09/870,965
Amdt. dated May 13, 2005
Reply to final Office action of March 31, 2005

REMARKS/ARGUMENTS

Applicants have received the final Office action dated March 31, 2005, in which the Examiner: 1) rejected claims 1-24 under 35 U.S.C. § 103(a) as being unpatentable over Hauck et al. (U.S. Pat. No. 6,026,454) and further in view of Colleran et al. (U.S. Pat. No. 6,850,257 B1).

With this Response, Applicants have amended claims 1 and 21 in order to clarify the claimed invention.

As amended, independent claim 1 now recites in part "wherein the watchdog driver observes at least one application for a periodic message from and initiated by the application and wherein if the periodic message is not received in a predetermined period of time, the watchdog driver instructs the reset service to initiate a reset procedure that resets the at least one application without resetting the operating system." The cited Hauck and Colleran taken together or individually fail to teach or suggest such a watchdog driver. In Colleran which is used to support application resetting without resetting the OS, the computer user is the one that has to manually go to the "ghost window" that is generated and close the hung up application. All Colleran has done is present a ghost window that as noted in col. 12, lines 29-32 is linked to the task manager ("taskman.exe") which when the ghost window is closed the hung-up application is terminated by the taskman.exe. This is not a whole lot different than a computer user invoking the task manager routine by pressing the "CTL-ALT-DELETE" keys in a computer running Microsoft Windows. Unlike that which is taught in Colleran, the present invention automatically resets the non-responsive application using an application level watchdog timer saving the user from having to manually perform any tasks. This is very important in for example an unmanned computer system, such as a remote server. Given the above, it is believed that claims 1-6 are in condition for allowance.

Applicants respectfully traverse the rejection of claims 7-13. Independent claim 7 recites in part "wherein if the system thread does not receive a message from one of said applications within an allotted period of time, the timer event alerts the watchdog driver that the allotted time has elapsed and the watchdog

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driver signals the restart service to restart that application without having to restart the computer operating system, reset the computer operating system or perform a full computer system reset depending on how restart service has been configured." As above, the cited Colleran together with the Hauck reference fail to teach an application level watchdog driver that causes a non-responsive application to be restarted. As mentioned above, Colleran requires the intervention by the user to manually go in and cause the application to terminate. If the application is to be restarted, the user would then have to take extra steps. As such, claims 7-13 are believed to be in condition for allowance.

Applicants also respectfully traverse the rejection of claims 14-20. Independent claim 14 recites in part "wherein if the system thread fails to detect the periodic signals from the application for a pre-configured amount of time, the watchdog driver initiates a command to the restart service to terminate and restart the application without having to reset the computer operating system." As previously mentioned the cited Hauck and Colleran references taken individually or together fail to teach such a watchdog driver that can terminate and restart the application on its own, unlike the Colleran reference which requires user intervention to perform the task. As such, claims 14-20 are believed to be in condition for allowance.

As now amended independent claim 21 recites in part "wherein the watchdog driver monitors the at least one user application for a periodic message from the at least one user application and wherein if the periodic message is not received in a predetermined period of time, the watchdog driver instructs the reset service to initiate a reset procedure that resets the at least one application without resetting the operating system." Similar to that mentioned for independent claim 1, the cited Hauck and Colleran fail to teach or suggest such a application level watchdog timer, as such, claims 21-24 are believed to be in condition for allowance.

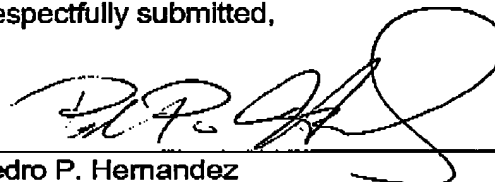
In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that

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the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,



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